

1999

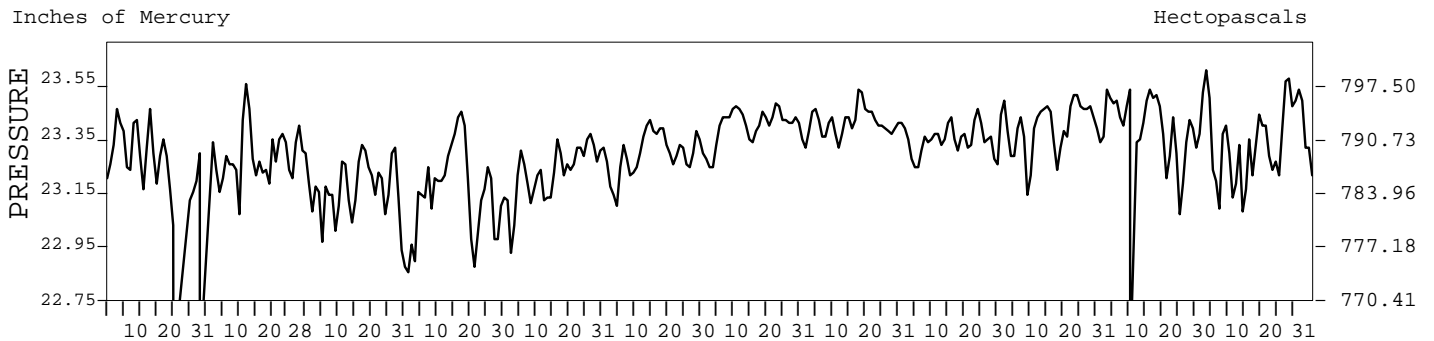
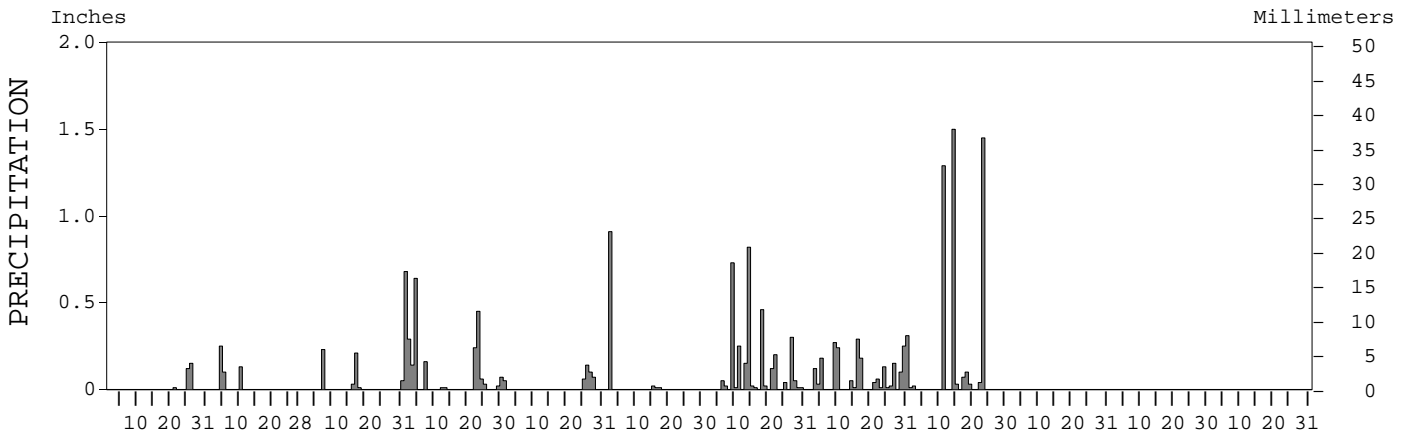
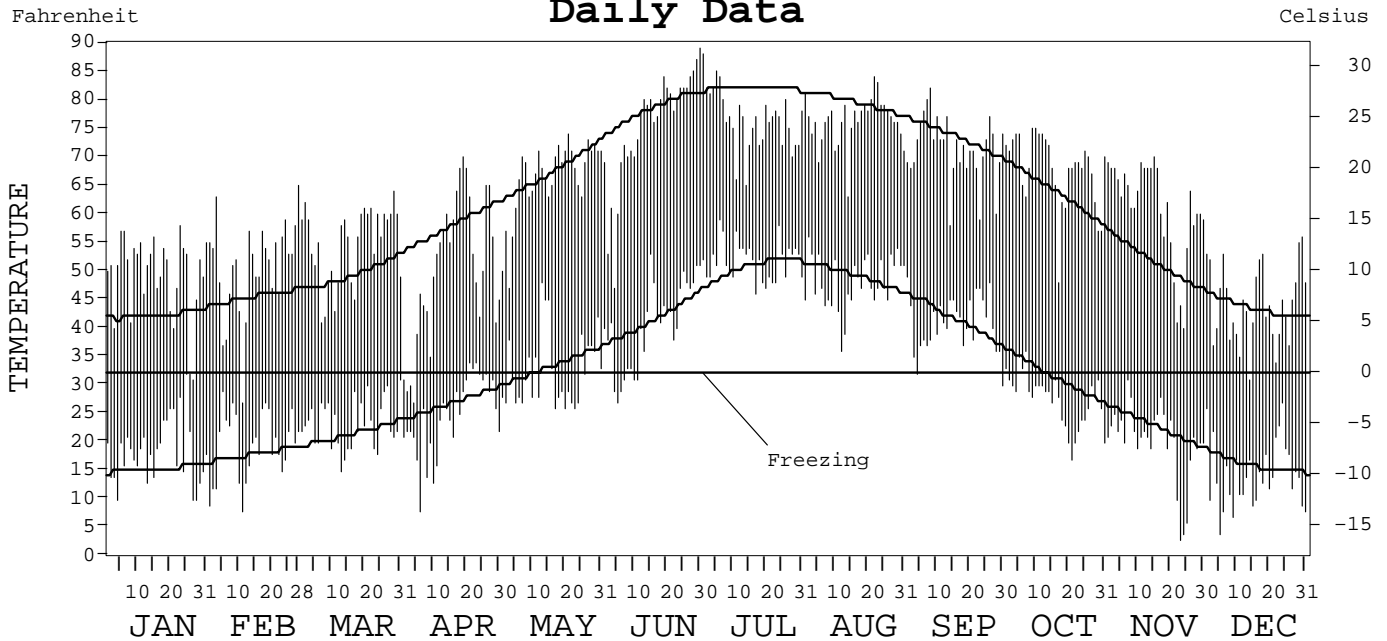
LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-0564

FLAGSTAFF, ARIZONA (FLG)

Daily Data



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METEOROLOGICAL DATA FOR 1999

FLAGSTAFF, AZ (FLG)

LATITUDE: 35° 08' 25" N LONGITUDE: 111° 40' 20" W ELEVATION (FT): GRND: 7001 BARO: 7001 TIME ZONE: MOUNTAIN (UTC + 7) WBAN: 03103

	ELEMENT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	49.3	50.6	54.7	50.3	66.2	75.4	76.5	76.2	71.4	67.8	60.8	44.2	61.9	
	HIGHEST DAILY MAXIMUM	58	65	64	70	74	89	88	84	82	75	70	56	89	
	DATE OF OCCURRENCE	23	28	29	19	21	30	01	22	08	10+	15	30	JUN 30	
	MEAN DAILY MINIMUM	18.4	19.6	23.3	24.7	32.5	40.5	51.8	48.0	40.8	27.5	20.1	14.3	30.1	
	LOWEST DAILY MINIMUM	10	8	15	8	26	27	46	36	30	17	3	4	3	
	DATE OF OCCURRENCE	28+	11	13	06	23+	05	17	12	30	21	23	05	NOV 23	
	AVERAGE DRY BULB	33.9	35.1	39.0	37.5	49.4	58.0	64.2	62.1	56.1	47.7	40.5	29.3	46.1	
	MEAN WET BULB			31.1	31.1	38.9	46.1	56.2	54.2	47.9	36.2		22.5		
	MEAN DEW POINT			18.9	20.4	24.0	32.1	51.1	49.0	40.5	22.5		8.6		
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 90°	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MAXIMUM ≤ 32°	2	1	0	4	0	0	0	0	0	0	0	1	8	
MINIMUM ≤ 32°	31	28	31	27	18	6	0	0	2	27	30	31	231		
MINIMUM ≤ 0°	0	0	0	0	0	0	0	0	0	0	0	0	0		
H/C	HEATING DEGREE DAYS	957	829	798	817	480	220	45	86	260	529	726	1099	6846	
	COOLING DEGREE DAYS	0	0	0	0	0	15	29	5	0	0	0	0	49	
RH	MEAN (PERCENT)	51	49	50	56	40	40	69	69	63	45	46	46	52	
	HOUR 05 LST	68	68	73	73	68	64	88	89	83	71	70	60	73	
	HOUR 11 LST	40	35	34	46	28	28	50	48	44	22	24	34	36	
	HOUR 17 LST	36	32	32	42	25	24	57	55	43	21	24	33	35	
	HOUR 23 LST	61	60	60	64	44	46	80	82	77	59	56	49	62	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	1	0	2	5	0	0	1	0	1	0	0	0	10	
	THUNDERSTORMS	0	0	1	1	4	3	17	17	5	0	0	0	48	
CLOUDINESS	SUNRISE-SUNSET: (OKTAS)														
	CEILOMETER (≤ 12,000 FT.)														
	SATELLITE (> 12,000 FT.)														
	MIDNIGHT-MIDNIGHT: (OKTAS)														
	CEILOMETER (≤ 12,000 FT.)														
	SATELLITE (> 12,000 FT.)														
NUMBER OF DAYS WITH:															
CLEAR															
PARTLY CLOUDY															
CLOUDY															
PR	MEAN STATION PRESS. (IN.)			23.16	23.13	23.21	23.28	23.38	23.39	23.33	23.38		23.30		
	MEAN SEA-LEVEL PRESS. (IN.)			29.92	29.90		29.91	30.01	30.04	30.01	30.14				
WINDS	RESULTANT SPEED (MPH)			5.5	5.2	6.4	3.4	2.5	1.0	1.0	0.8		2.8		
	RES. DIR. (TENS OF DEGS.)			22	22	23	24	23	18	19	10		07		
	MEAN SPEED (MPH)	5.9		7.3	9.1	8.3	7.1	4.9	4.0	4.5	4.7	3.9	7.2		
	PREVAIL. DIR. (TENS OF DEGS.)	36	21	23	21	22	21	21	20	21	06	21	07	23	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	26	33	38	33	30	29	25	28	23	38	28	30	38	
	DIR. (TENS OF DEGS.)	25	07	21	20	21	21	20	20	20	04	21	07	04	
	DATE OF OCCURRENCE	21	11	31	07	13	02	03	10	02	17	17	04+	OCT 17	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	38	40	48	43	41	38	33	37	29	53	38	38	53	
DIR. (TENS OF DEGS.)	25	07	21	21	26	18	20	20	21	04	20	20	04		
DATE OF OCCURRENCE	21	11	31	28	04+	07	03	10	02	17	17	01	OCT 17		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	0.28	0.48	0.53	2.80	0.42	0.95	3.27	2.45	4.54	T	0.00	T	15.72	
	GREATEST 24-HOUR (IN.)	0.15	0.35	0.24	0.68	0.14	0.91	0.82	0.53	1.51	T	0.00	T	1.51	
	DATE OF OCCURRENCE	26	04-05	16-17	01	26	02	14	30-31	14-15	26+		31+	SEP 14-15	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	3	3	5	13	5	4	18	19	10	0	0	0	80	
PRECIPITATION ≥ 0.10	2	3	2	7	2	1	8	11	4	0	0	0	40		
PRECIPITATION ≥ 1.00	0	0	0	0	0	0	0	0	3	0	0	0	3		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)														
	GREATEST 24-HOUR (IN.)														
	DATE OF OCCURRENCE														
	MAXIMUM SNOW DEPTH (IN.)														
	DATE OF OCCURRENCE														
NUMBER OF DAYS WITH:															
SNOWFALL ≥ 1.0															

NORMALS, MEANS, AND EXTREMES

FLAGSTAFF, AZ (FLG)

LATITUDE: 35° 08' 25" N LONGITUDE: 111° 40' 20" W ELEVATION (FT): GRND: 7001 BARO: 7001 TIME ZONE: MOUNTAIN (UTC + 7) WBAN: 03103

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	42.2	45.3	49.2	57.8	67.4	78.2	81.9	79.3	73.2	63.4	51.1	43.3	61.0	
	MEAN DAILY MAXIMUM	49	42.4	45.0	49.6	57.8	67.2	77.8	81.7	79.0	73.8	63.5	51.0	43.5	61.0	
	HIGHEST DAILY MAXIMUM	50	66	71	73	80	87	96	97	92	90	85	74	68	97	
	YEAR OF OCCURRENCE		1971	1986	1988	1992	1974	1970	1973	1978	1950	1980	1977	1950	1950	JUL 1973
	MEAN OF EXTREME MAXS.	50	57.2	59.6	63.9	71.6	78.1	88.5	90.0	87.4	83.2	75.9	65.3	58.5	73.3	
	NORMAL DAILY MINIMUM	30	15.2	17.7	21.3	26.7	33.3	41.4	50.5	48.9	41.2	31.0	22.4	15.8	30.4	
	MEAN DAILY MINIMUM	49	15.7	17.8	21.6	26.9	33.0	41.0	50.2	49.1	41.3	30.8	21.4	16.3	30.4	
	LOWEST DAILY MINIMUM	50	-22	-23	-16	-2	0	22	32	24	23	-2	-13	-23	-23	
	YEAR OF OCCURRENCE		1971	1985	1966	1975	1996	1955	1955	1968	1971	1971	1958	1990	1990	DEC 1990
	MEAN OF EXTREME MINS.	50	-5.1	-1.0	4.5	13.7	21.1	29.1	40.9	40.4	29.3	18.2	5.4	-3.0	16.1	
	NORMAL DRY BULB	30	28.7	31.5	35.3	42.3	50.4	59.8	66.3	64.1	57.3	47.2	36.8	29.6	45.8	
	MEAN DRY BULB	50	29.1	31.5	35.7	42.5	50.3	59.4	66.0	64.0	57.4	47.2	36.6	30.0	45.8	
	MEAN WET BULB	46	24.1	26.6	29.3	33.7	39.4	45.0	53.7	53.4	47.5	38.1	30.1	24.6	37.1	
	MEAN DEW POINT	46	15.7	17.7	18.9	20.8	24.6	28.4	44.2	46.0	38.9	27.3	20.3	15.4	26.5	
	NORMAL NO. DAYS WITH:															
MAXIMUM ≥ 90°	30	0.0	0.0	0.0	0.0	0.0	1.7	1.8	0.4	0.0	0.0	0.0	0.0	3.9		
MAXIMUM ≤ 32°	30	4.5	2.6	1.6	0.2	0.0	0.0	0.0	0.0	0.0	0.2	1.1	5.2	15.4		
MINIMUM ≤ 32°	30	30.4	27.5	29.9	25.2	13.9	2.9	0.0	0.1	2.8	18.7	28.0	30.3	209.7		
MINIMUM ≤ 0°	30	3.2	1.2	0.7	0.1	0.0	0.0	0.0	0.0	0.0	*	0.4	2.4	8.0		
H/C	NORMAL HEATING DEG. DAYS	30	1125	938	921	681	453	187	29	65	237	552	846	1097	7131	
	NORMAL COOLING DEG. DAYS	30	0	0	0	0	0	31	70	38	6	0	0	0	145	
RH	NORMAL (PERCENT)	30	62	60	55	46	39	34	51	58	55	53	57	61	53	
	HOUR 05 LST	30	72	73	71	65	62	53	68	77	74	70	70	71	69	
	HOUR 11 LST	30	52	49	45	35	29	23	35	40	39	38	44	50	40	
	HOUR 17 LST	30	50	45	41	32	26	21	39	43	37	36	44	50	39	
	HOUR 23 LST	30	69	68	63	55	47	40	60	68	66	63	65	68	61	
S	PERCENT POSSIBLE SUNSHINE	15	77	73	76	82	88	86	75	76	81	79	75	73	78	
W/O	MEAN NO. DAYS WITH:															
	HEAVY FOG (VISBY ≤ 1/4 MI)	35	2.3	2.0	1.7	1.6	0.3	0.0	0.3	0.3	0.5	1.2	1.2	1.9	13.3	
	THUNDERSTORMS	35	0.0	0.4	0.7	1.4	2.3	3.3	15.5	15.3	6.8	2.1	0.6	0.2	48.6	
CLOUDINESS	MEAN:															
	SUNRISE-SUNSET (OKTAS)	2		5.6	4.4	4.8	1.6	2.4	3.2	4.8				4.4		
	MIDNIGHT-MIDNIGHT (OKTAS)	1		5.6	5.6		0.8	2.4	3.2	4.8		0.0	3.2	4.0		
	MEAN NO. DAYS WITH:															
CLEAR	1		10.0	6.0	9.0	1.0		3.0	2.0	6.0	14.0		6.0			
PARTLY CLOUDY	1		5.0	8.0	5.0			2.0	3.0	7.0	3.0		5.0			
CLOUDY	1	4.0	8.0	8.0	5.0				6.0	3.0			7.0			
PR	MEAN STATION PRESSURE (IN)	9	23.22	23.21	23.16	23.17	23.22	23.29	23.38	23.38	23.33	23.31	23.26	23.26	23.27	
	MEAN SEA-LEVEL PRES. (IN)	46	30.13	30.08	29.98	29.94	29.92	29.91	30.00	30.01	30.00	30.06	30.10	30.12	30.02	
WINDS	MEAN SPEED (MPH)	20	5.9	6.0	6.4	6.9	7.1	6.6	5.2	4.3	4.7	5.2	5.8	5.8	5.8	
	PREVAIL. DIR (TENS OF DEGS)	4	21	21	22	21	21	21	21	21	21	21	21	21	21	
	MAXIMUM 2-MINUTE:															
	SPEED (MPH)	5	36	33	38	38	34	34	31	30	30	38	34	34	38	
	DIR. (TENS OF DEGS)		22	07	19	19	19	20	19	09	19	04	19	19	04	
	YEAR OF OCCURRENCE		1996	1999	1995	1997	1995	1995	1995	1998	1997	1999	1998	1996	OCT 1999	
	MAXIMUM 5-SECOND:															
SPEED (MPH)	5	45	45	49	46	41	44	36	37	38	53	46	46	53		
DIR. (TENS OF DEGS)		24	18	19	19	19	21	20	33	19	04	20	19	04		
YEAR OF OCCURRENCE		1996	1998	1995	1997	1995	1995	1995	1998	1998	1999	1998	1998	OCT 1999		
PRECIPITATION	NORMAL (IN)	30	2.04	2.09	2.55	1.48	0.72	0.40	2.78	2.75	2.03	1.61	1.95	2.40	22.80	
	MAXIMUM MONTHLY (IN)	50	9.55	10.05	6.75	5.62	4.14	2.92	6.62	8.06	6.75	9.86	6.64	7.30	10.05	
	YEAR OF OCCURRENCE		1993	1993	1970	1965	1992	1955	1986	1986	1983	1972	1985	1967	FEB 1993	
	MINIMUM MONTHLY (IN)	50	0.00	T	T	T	T	0.00	T	0.26	0.00	T	0.00	T	0.00	
	YEAR OF OCCURRENCE		1972	1967	1972	1991	1974	1971	1993	1962	1995	1952	1999	1958	NOV 1999	
	MAXIMUM IN 24 HOURS (IN)	50	2.71	4.48	2.96	1.79	1.11	2.79	2.55	3.04	3.43	2.73	3.69	3.11	4.48	
	YEAR OF OCCURRENCE		1993	1993	1970	1985	1965	1956	1964	1986	1965	1972	1978	1951	FEB 1993	
	NORMAL NO. DAYS WITH:															
PRECIPITATION ≥ 0.01	30	7.7	7.1	9.2	6.0	4.8	2.8	11.9	11.6	7.4	5.0	5.5	7.4	86.4		
PRECIPITATION ≥ 1.00	30	0.3	0.3	0.3	0.2	*	0.0	0.5	0.5	0.5	0.4	0.4	0.6	4.0		
SNOWFALL	NORMAL (IN)	30	20.5	19.0	24.4	11.9	1.9	0.0	0.0	0.0	0.1	2.5	10.7	17.8	108.8	
	MAXIMUM MONTHLY (IN)	46	63.4	45.5	79.4	58.3	8.2	T	T	0.3	2.0	24.7	40.7	86.0	86.0	
	YEAR OF OCCURRENCE		1980	1990	1991	1965	1975	1993	1992	1992	1965	1971	1985	1967	DEC 1967	
	MAXIMUM IN 24 HOURS (IN)	46	23.1	23.1	26.3	17.2	6.6	T	T	0.3	2.0	13.5	19.6	27.3	27.3	
	YEAR OF OCCURRENCE		1980	1987	1970	1977	1965	1993	1992	1992	1965	1974	1991	1967	DEC 1967	
	MAXIMUM SNOW DEPTH (IN)	45	34	40	37	31	8	0	0	0	T	11	23	66	66	
	YEAR OF OCCURRENCE		1979	1979	1969	1973	1954				1965	1974	1975	1967	DEC 1967	
NORMAL NO. DAYS WITH:																
SNOWFALL ≥ 1.0	30	4.1	4.2	5.4	2.6	0.6	0.0	0.0	0.0	0.*	0.6	2.2	4.1	23.8		

PRECIPITATION (inches) 1999 FLAGSTAFF, AZ (FLG)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	0.51	0.41	6.75	1.16	T	0.07	2.58	5.15	3.79	0.11	1.37	2.12	24.02
1971	0.08	1.48	0.25	0.55	1.23	0.00	1.97	4.48	2.02	4.37	0.40	4.18	21.01
1972	0.00	0.02	T	0.72	0.14	1.93	1.90	2.82	0.81	9.86	2.34	4.13	24.67
1973	1.89	3.69	6.18	1.21	1.17	0.40	1.87	1.25	T	0.03	1.90	0.12	19.71
1974	3.63	0.26	1.01	0.57	T	T	3.00	2.16	0.93	3.64	1.03	1.18	17.41
1975	1.76	1.90	2.92	2.20	1.16	0.05	2.24	0.74	1.89	0.33	2.96	1.95	20.10
1976	0.17	5.96	2.06	3.09	1.65	T	3.82	0.58	1.16	0.73	0.10	0.80	20.12
1977	1.85	0.84	0.92	1.47	0.96	0.91	3.60	3.72	1.52	1.04	0.76	1.18	18.77
1978	4.09	4.67	5.58	1.60	0.27	0.09	1.17	0.68	0.46	0.56	6.16	5.39	30.72
1979	5.54	1.73	2.52	0.31	2.16	0.18	0.79	2.38	0.13	1.30	1.14	1.50	19.68
1980	6.52	7.81	4.16	1.21	1.79	0.25	2.49	2.19	0.65	1.08	T	1.15	29.30
1981	1.31	1.16	4.04	1.50	0.72	1.09	2.87	3.73	2.54	1.81	2.43	0.17	23.37
1982	4.62	2.55	5.69	0.25	0.86	T	1.89	2.32	3.17	0.71	5.36	3.67	31.09
1983	1.61	3.04	4.36	2.18	0.06	0.28	2.86	3.53	6.75	0.75	1.53	2.52	29.47
1984	0.36	0.13	0.89	0.73	0.21	0.13	4.20	3.86	1.75	1.43	1.40	5.00	20.09
1985	2.38	1.67	2.54	3.39	0.26	0.09	2.36	1.07	3.68	2.44	6.64	0.15	26.67
1986	0.31	1.76	2.60	1.23	0.72	1.16	6.62	8.06	4.80	2.02	1.68	1.43	32.39
1987	2.51	2.54	1.69	0.21	0.70	0.25	1.93	3.74	1.49	4.64	2.91	1.37	23.98
1988	1.64	2.30	0.14	3.83	0.14	1.86	3.48	4.77	0.15	1.23	1.14	1.00	21.68
1989	1.84	1.35	2.08	0.01	0.62	0.23	2.28	3.40	0.30	1.28	T	1.05	14.44
1990	1.54	3.20	2.17	2.32	0.73	0.24	4.32	1.71	6.18	0.49	1.09	1.68	25.67
1991	1.76	2.08	6.00	T	0.14	0.59	1.04	1.64	0.26	1.12	4.47	2.73	21.83
1992	2.03	3.69	4.40	0.78	4.14	0.32	2.67	5.80	T	3.64	0.46	6.78	34.71
1993	9.55	10.05	1.54	0.26	0.44	0.55	T	4.19	1.95	3.29	3.02	0.76	35.60
1994	0.38	2.47	3.03	2.48	1.01		1.70	3.61	2.75	1.12	1.91	1.43	
1995	2.39	3.77	3.99	1.49	0.44	0.06	0.61	2.30	0.00	0.01	0.31	0.35	15.72
1996	0.19	1.36	0.54	0.07	T	T	1.79	0.92	3.73	0.93		0.64	
1997	3.21	0.99	0.03	0.60	0.08	0.18	0.21	2.83	3.68	1.15	0.80	1.85	15.61
1998	1.30	2.15	3.74	1.52	1.31	0.00	4.72	2.82	4.45	3.11	1.76	0.42	27.30
1999	0.28	0.48	0.53	2.80	0.42	0.95	3.27	2.45	4.54	T	0.00	T	15.72
POR= 100 YRS	2.00	2.05	2.10	1.32	0.70	0.49	2.69	2.87	1.88	1.53	1.48	1.88	20.99

WBAN : 03103

AVERAGE TEMPERATURE (°F) 1999 FLAGSTAFF, AZ (FLG)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	30.9	37.1	33.7	37.5	52.6	60.4	67.7	66.3	54.4	43.9	39.5	28.5	46.0
1971	29.3	31.1	37.0	41.9	46.8	58.7	67.5	64.0	53.0	38.6	33.5	22.5	43.7
1972	28.4	31.8	40.0	39.8	46.4	57.6	66.5	62.9	56.7	45.9	29.6	21.9	44.0
1973	22.9	28.7	26.8	38.0	52.8	60.5	65.7	64.6	57.7	50.0	37.1	33.0	44.8
1974	27.8	30.5	40.4	43.2	54.8	66.5	66.3	64.7	58.7	47.9	36.8	26.8	47.0
1975	27.7	27.6	33.2	36.2	47.5	57.1	65.9	63.5	57.9	46.5	37.3	29.2	44.1
1976	30.6	35.1	35.4	41.4	52.8	58.9	66.5	62.8	57.1	47.0	39.5	31.6	46.6
1977	26.8	34.2	33.5	44.7	47.4	62.2	67.2	66.2	60.2	50.8	41.0	37.6	47.7
1978	31.5	30.7	40.3	42.2	49.4	61.4	66.6	63.7	57.3	49.8	34.6	24.3	46.0
1979	22.6	25.9	32.3	40.7	47.9	57.8	64.1	60.5	58.8	47.8	31.2	31.2	43.4
1980	30.7	32.8	32.3	41.9	45.6	60.9	69.0	66.3	59.7	49.0	41.4	39.9	47.5
1981	36.2	36.3	36.6	48.5	52.1	66.1	68.2	65.4	58.7	46.7	41.8	36.4	49.4
1982	28.3	30.5	35.3	43.5	49.9	57.1	63.8	65.6	57.6	44.0	35.2	28.1	44.9
1983	31.0	32.3	36.2	37.0	49.9	57.3	65.5	63.8	60.7	48.6	36.9	34.0	46.1
1984	31.7	32.8	38.3	40.7	56.8	58.5	65.7	63.8	59.3	42.4	35.3	29.0	46.2
1985	27.5	28.9	35.5	46.2	51.5	62.6	67.2	65.3	53.1	47.7	33.8	32.4	46.0
1986	37.0	34.2	39.7	44.1	52.0	61.2	64.0	65.7	53.0	43.5	37.6	30.2	46.9
1987	27.6	31.1	32.8	45.9	50.7	61.3	62.8	62.8	56.5	50.4	36.2	27.1	45.4
1988	29.1	34.2	37.4	44.0	50.8	61.5	67.4	64.3	55.9	52.5	36.9	27.9	46.8
1989	26.2	32.3	41.8	50.4	54.2	60.8	68.1	63.6	58.7	47.5	38.4	31.6	47.8
1990	28.6	29.3	38.3	46.1	50.3	64.4	66.9	62.6	59.8	48.9	37.6	25.1	46.5
1991	30.5	37.2	32.2	43.1	49.4	57.3	67.1	66.5	59.6	50.8	36.9	30.2	46.7
1992	27.3	35.2	38.1	49.1	53.3	59.0	65.1	64.2	59.3	50.4	33.8	26.3	46.8
1993	32.2	32.5	40.2	46.4	53.9	60.4	65.5	64.8	57.9	47.4	35.0	30.1	47.2
1994	32.8	29.8	40.6	44.3	51.7		65.4	66.4	58.1	44.2	32.2	32.1	
1995	28.4	37.2	38.2	40.4		55.1	64.6			47.7	42.3	31.9	
1996	31.4	36.9	37.8	44.9		61.9							
1997	28.0	29.6	39.1	40.5	54.1	57.1	63.8	63.8	59.4	45.0	37.7	26.6	45.4
1998	31.4	27.2	33.7	37.2	46.8	55.0	66.2	64.9	57.3	44.6	37.1	31.1	44.4
1999	33.9	35.1	39.0	37.5	49.4	58.0	64.2	62.1	56.1	47.7	40.5	29.3	46.1
POR= 100 YRS	28.3	31.2	35.8	42.8	50.4	59.4	65.8	63.9	57.4	47.1	36.4	29.7	45.7

HEATING DEGREE DAYS (base 65°F) 1999 FLAGSTAFF, AZ (FLG)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1970-71	6	16	310	643	758	1125	1098	943	862	683	557	210	7211
1971-72	24	40	352	809	938	1310	1126	956	768	749	573	220	7865
1972-73	22	78	241	584	1055	1330	1297	1006	1176	801	370	164	8124
1973-74	39	45	212	458	829	987	1147	960	754	650	310	67	6458
1974-75	19	34	195	522	841	1178	1150	1041	978	856	536	231	7581
1975-76	23	66	207	566	821	1101	1059	862	912	702	370	190	6879
1976-77	17	71	230	553	757	1027	1177	858	970	603	540	102	6905
1977-78	9	19	157	432	715	843	1032	954	756	677	478	128	6200
1978-79	33	73	227	465	907	1254	1307	1089	1005	722	524	219	7825
1979-80	68	157	186	526	1008	1042	1056	930	1009	684	596	158	7420
1980-81	6	43	153	491	703	774	886	794	873	486	398	50	5657
1981-82	1	39	182	558	689	880	1130	963	911	640	458	230	6681
1982-83	65	22	218	643	888	1136	1046	911	888	835	461	222	7335
1983-84	26	64	134	502	837	952	1025	929	820	722	247	204	6462
1984-85	21	51	165	695	884	1109	1155	1005	911	557	411	102	7066
1985-86	26	31	351	532	931	1005	862	855	777	619	392	119	6500
1986-87	58	28	353	661	816	1069	1150	942	990	566	435	114	7182
1987-88	82	86	246	447	859	1167	1103	885	848	621	434	124	6902
1988-89	9	41	266	381	836	1141	1196	910	710	432	330	139	6391
1989-90	7	67	184	540	792	1030	1124	996	822	558	449	84	6653
1990-91	10	93	167	494	816	1231	1060	772	1008	652	476	225	7004
1991-92	7	12	159	438	835	1071	1159	854	830	470	356	180	6371
1992-93	38	80	163	444	932	1191	1014	903	761	551	339	158	6574
1993-94	29	45	207	538	893	1073	990	979	747	614	406		
1994-95	35	11	203	637	974	1014	1128	772	821	731		290	
1995-96	60	10		531	671	1015	1035	807	834	597		108	
1996-97	2	36	291	620		966	1141	984	797	729	330	231	
1997-98	61	45	161	613	813	1182	1037	1050	964	828	559	300	7613
1998-99	15	27	226	624	832	1044	957	829	798	817	480	220	6869
1999-	45	86	260	529	726	1099							

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COOLING DEGREE DAYS (base 65°F) 1999 FLAGSTAFF, AZ (FLG)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	0	0	0	0	0	44	99	64	1	0	0	0	208
1971	0	0	0	0	0	28	108	17	0	0	0	0	153
1972	0	0	0	0	0	4	76	20	0	0	0	0	100
1973	0	0	0	0	0	34	69	40	0	0	0	0	143
1974	0	0	0	0	0	120	66	33	13	0	0	0	232
1975	0	0	0	0	0	0	60	28	0	0	0	0	88
1976	0	0	0	0	0	15	70	13	0	0	0	0	98
1977	0	0	0	0	0	28	82	61	20	0	0	0	191
1978	0	0	0	0	0	25	87	38	2	0	0	0	152
1979	0	0	0	0	0	10	47	24	4	0	0	0	85
1980	0	0	0	0	0	43	133	91	2	0	0	0	269
1981	0	0	0	0	0	91	108	58	0	0	0	0	257
1982	0	0	0	0	0	1	36	46	6	0	0	0	89
1983	0	0	0	0	0	0	45	31	12	0	0	0	88
1984	0	0	0	0	2	14	49	23	2	0	0	0	90
1985	0	0	0	0	0	36	102	47	0	0	0	0	185
1986	0	0	0	0	0	11	33	55	0	0	0	0	99
1987	0	0	0	0	0	13	21	26	0	0	0	0	60
1988	0	0	0	0	0	28	94	28	1	0	0	0	151
1989	0	0	0	0	0	22	111	29	0	0	0	0	162
1990	0	0	0	0	0	76	76	28	18	0	0	0	198
1991	0	0	0	0	0	0	79	65	4	0	0	0	148
1992	0	0	0	0	0	6	48	62	0	0	0	0	116
1993	0	0	0	0	0	26	50	46	1	0	0	0	123
1994	0	0	0	0	0		53	57	0	0	0	0	
1995	0	0	0	0	0	0	53	76		0	0	0	
1996	0	0	0	0	0	18							
1997	0	0	0	0	1	0	29	14	2	0	0	0	46
1998	0	0	0	0	0	5	60	28	0	0	0	0	93
1999	0	0	0	0	0	15	29	5	0	0	0	0	49

SNOWFALL (inches) 1999 FLAGSTAFF, AZ (FLG)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1970-71	0.0	0.0	0.0	0.0	2.0	24.5	0.8	15.1	3.1	5.0	6.1	0.0	56.6
1971-72	0.0	0.0	T	24.7	4.9	18.8	0.0	0.4	T	1.5	0.0	0.0	50.3
1972-73	0.0	0.0	0.0	11.8	23.2	28.9	21.0	33.8	77.4	10.9	3.0	0.0	210.0
1973-74	0.0	0.0	0.0	T	20.7	1.2	35.3	2.4	8.8	1.6	0.0	0.0	70.0
1974-75	0.0	0.0	0.0	16.6	8.2	15.6	20.1	18.2	29.1	25.1	8.2	0.0	141.1
1975-76	0.0	0.0	0.0	T	25.2	18.9	1.5	31.2	20.4	31.2	3.2	0.0	131.6
1976-77	0.0	0.0	0.0	T	0.7	9.0	21.1	11.2	8.8	17.8	1.6	0.0	70.2
1977-78	0.0	0.0	0.0	0.0	7.0	1.6	40.4	32.1	24.5	9.3	1.3	0.0	116.2
1978-79	0.0	0.0	0.0	0.0	16.5	19.8	59.4	18.1	22.8	4.1	4.8	0.0	145.5
1979-80	0.0	0.0	0.0	0.5	5.5	20.7	63.4	32.9	42.5	11.6	T	0.0	177.1
1980-81	0.0	0.0	0.0	6.9	T	6.8	11.7	11.9	45.6	9.5	0.0	0.0	92.4
1981-82	0.0	0.0			0.0	0.0	47.5	20.4	26.7	1.9	0.4	0.0	
1982-83	0.0	0.0	T	T	22.6	27.1	15.3	25.0	38.5	13.6	0.5	0.0	142.6
1983-84	0.0	0.0	0.0	0.0	14.3	5.8	4.3	1.8	0.3	5.5	0.0	0.0	32.0
1984-85	0.0	0.0	0.0	0.6	9.4	28.7	26.2	31.3	21.3	18.5	0.0	0.0	136.0
1985-86	0.0	0.0	0.0	0.0	40.7	2.6	0.4	26.9	32.8	1.6	0.4	0.0	105.4
1986-87	0.0	0.0	0.9	0.6	4.8	9.5	38.6	40.7	25.0	1.5	0.0	0.0	121.6
1987-88	0.0	0.0	0.0	0.0	2.9	16.7	28.9	21.0	1.5	33.1	0.4	0.0	104.5
1988-89	0.0	0.0	0.0	0.0	11.9	15.0	21.7	12.0	16.6	T	0.5	0.0	77.7
1989-90	0.0	T	T	T	T	13.1	24.2	45.5	25.0	4.2	1.4	0.0	113.4
1990-91	T	T	T	T	9.6	22.3	3.1	13.5	79.4	T	T	0.0	127.9
1991-92	0.0	0.0	T	5.9	39.5	24.0	24.7	24.9	35.9	4.0	T	T	158.9
1992-93	T	0.3	0.0	0.5	2.1	41.7	55.7	35.2	11.9	2.3	0.3	T	150.0
1993-94	0.0	T	T	0.0	23.0	13.4	6.9	26.1	12.3	27.8	T		
1994-95	0.0	T	0.0									0.0	
1995-96	0.0	0.0	0.0	0.0	0.0								
1996-97													
1997-98													
1998-99													
1999-													
POR= 46 YRS	T	T	0.1	2.0	9.7	15.6	20.0	18.0	21.5	9.7	1.7	T	98.3

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REFERENCE NOTES:

<p>PAGE 1: THE TEMPERATURE GRAPH SHOWS NORMAL MAXIMUM AND NORMAL MINIMUM DAILY TEMPERATURES (SOLID CURVES) AND THE ACTUAL DAILY HIGH AND LOW TEMPERATURES (VERTICAL BARS).</p> <p>PAGE 2 AND 3: H/C INDICATES HEATING AND COOLING DEGREE DAYS. RH INDICATES RELATIVE HUMIDITY W/O INDICATES WEATHER AND OBSTRUCTIONS S INDICATES SUNSHINE. PR INDICATES PRESSURE. CLOUDINESS ON PAGE 3 IS THE SUM OF THE CEILOMETER AND SATELLITE DATA NOT TO EXCEED EIGHT EIGHTHS(OKTAS).</p> <p>GENERAL: T INDICATES TRACE PRECIPITATION, AN AMOUNT GREATER THAN ZERO BUT LESS THAN THE LOWEST REPORTABLE VALUE. + INDICATES THE VALUE ALSO OCCURS ON EARLIER DATES. BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA. NORMALS ARE 30-YEAR AVERAGES (1961 - 1990). ASOS INDICATES AUTOMATED SURFACE OBSERVING SYSTEM. PM INDICATES THE LAST DAY OF THE PREVIOUS MONTH. POR (PERIOD OF RECORD) BEGINS WITH THE JANUARY DATA MONTH AND IS THE NUMBER OF YEARS USED TO COMPUTE THE MEAN. INDIVIDUAL MONTHS WITHIN THE POR MAY BE MISSING. WHEN THE POR FOR A NORMAL IS LESS THAN 30 YEARS, THE NORMAL IS PROVISIONAL AND IS BASED ON THE NUMBER OF YEARS INDICATED. 0.* OR * INDICATES THE VALUE OR MEAN-DAYS-WITH IS BETWEEN 0.00 AND 0.05. CLOUDINESS FOR ASOS STATIONS DIFFERS FROM THE NON-ASOS OBSERVATION TAKEN BY A HUMAN OBSERVER. ASOS STATION CLOUDINESS IS BASED ON TIME-AVERAGED CEILOMETER DATA FOR CLOUDS AT OR BELOW 12,000 FEET AND ON SATELLITE DATA FOR CLOUDS ABOVE 12,000 FEET. THE NUMBER OF DAYS WITH CLEAR, PARTLY CLOUDY, AND CLOUDY CONDITIONS FOR ASOS STATIONS IS THE SUM OF THE CEILOMETER AND SATELLITE DATA FOR THE SUNRISE TO SUNSET PERIOD.</p>	<p>GENERAL CONTINUED: CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS. WHEN AT LEAST ONE OF THE ELEMENTS (CEILOMETER OR SATELLITE) IS MISSING, THE DAILY CLOUDINESS IS NOT COMPUTED. WIND DIRECTION IS RECORDED IN TENS OF DEGREES (2 DIGITS) CLOCKWISE FROM TRUE NORTH. "00" INDICATES CALM. "36" INDICATES TRUE NORTH. RESULTANT WIND IS THE VECTOR AVERAGE OF THE SPEED AND DIRECTION. AVERAGE TEMPERATURE IS THE SUM OF THE MEAN DAILY MAXIMUM AND MINIMUM TEMPERATURE DIVIDED BY 2. SNOWFALL DATA COMPRISE ALL FORMS OF FROZEN PRECIPITATION, INCLUDING HAIL. A HEATING (COOLING) DEGREE DAY IS THE DIFFERENCE BETWEEN THE AVERAGE DAILY TEMPERATURE AND 65° F. DRY BULB IS THE TEMPERATURE OF THE AMBIENT AIR. DEW POINT IS THE TEMPERATURE TO WHICH THE AIR MUST BE COOLED TO ACHIEVE 100 PERCENT RELATIVE HUMIDITY. WET BULB IS THE TEMPERATURE THE AIR WOULD HAVE IF THE MOISTURE CONTENT WAS INCREASED TO 100 PERCENT RELATIVE HUMIDITY.</p> <p>ON JULY 1, 1996, THE NATIONAL WEATHER SERVICE BEGAN USING THE "METAR" OBSERVATION CODE THAT WAS ALREADY EMPLOYED BY MOST OTHER NATIONS OF THE WORLD. THE MOST NOTICEABLE DIFFERENCE IN THIS ANNUAL PUBLICATION WILL BE THE CHANGE IN UNITS FROM TENTHS TO EIGHTHS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER.</p>
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1999
FLAGSTAFF,
ARIZONA (FLG)

Flagstaff, elevation 7,000 feet, is situated on a volcanic plateau at the base of the highest mountains in Arizona. The climate may be classified as vigorous with cold winters, mild, pleasantly cool summers, moderate humidity, and considerable diurnal temperature change. Only limited farming exists due to the short growing season. The stormy months are January, February, March, July, and August.

Based on the 1951-1980 period, the average first occurrence of 32 degrees Fahrenheit in the fall is September 21 and the average last occurrence in the spring is June 13.

Temperatures in Flagstaff are characteristic of high altitude climates. The average daily range of temperature is relatively high, especially in the winter months, October to March, as a result of extensive snow cover and clear skies. Winter minimum temperatures frequently reach zero or below and temperatures of -25 degrees or less have occurred. Summer maximum temperatures are often above 80 degrees and occasionally, temperatures have exceeded 95 degrees.

The Flagstaff area is semi-arid. Several months have recorded little or no precipitation. Over 90 consecutive days without measurable precipitation have occurred. Annual precipitation ranges from less than 10 inches to more than 35 inches. Winter snowfalls can be heavy, exceeding 100 inches during one month and over 200 inches during the winter season. However, accumulations are quite variable from year to year. Some winter months may experience little or no snow and the winter season has produced total snow accumulations of less than 12 inches.

STATION LOCATION

FLAGSTAFF, ARIZONA

LOCATION	OCCUPIED FROM	OCCUPIED TO	AIRLINE DISTANCES AND DIRECTIONS FROM PREVIOUS LOCATION	LATITUDE NORTH	LONGITUDE WEST	ELEVATION ABOVE											AUCI O M P A T I O N E T H E R I C A N S T A N D A R D S * *	* Type M = AMOS T = AUTOB S = ASOS W = AWOS	REMARKS
						SEA LEVEL	GROUND												
							WIND	EMERGENCY	EMERGENCY	EMERGENCY	EMERGENCY	EMERGENCY	EMERGENCY	EMERGENCY	EMERGENCY	EMERGENCY			
<u>COOPERATIVE</u>																			
Aspen & Park Streets	9/09/98	3/15/12	NA	35°12'	111°40'	Unk	45	6	6	NA	NA	NA	NA	NA	NA	NA	a	- Effective 6/22/07.	
Sitgreaves & Ellery Streets	3/15/12	10/29/19	0.5 mi. SSW	35°11'	111°40'	Unk	a55												
Thompson Residence 602 North Leroux St.	10/29/19	6/01/43	0.8 mi. NNE	35°12'	111°40'	6907	50	8	8	NA	NA	NA	7	NA	NA				
<u>CITY</u>																			
Post Office Building North San Francisco St.	6/01/43	1/12/50	0.3 mi. SSE	35°12'	111°40'	6903	48	34	34	NA	NA	33	32	NA	NA				First Order Weather Bureau Office.
<u>AIRPORT</u>																			
Administration Building Pulliam Airport (Flagstaff Municipal)	1/12/50	07/01/94	4 mi. S	35°08'	111°40'	6993 f7006	30 d20 M20	5	5	NA g15	NA	5 b5	NA c2	NA e5 M6	NA M				b - Minor adjustment 7/1/52. c - Installed 12/1/61. d - Effective 10/7/65. e - Commissioned 1000' ESE of thermometer site 8/15/68. f - Effective 8/15/68. g - Installed 4/1/72. M - RAMOS commissioned 9/4/80. h - Removed 9/4/80.
Pulliam Airport	07/01/94	Present	NA	35°08'	111°40'	7001									S				ASOS commissioned 7/1/94.

SUBSCRIPTION: Price and ordering information available through: National Climatic Data Center, Federal Building, Asheville, North Carolina 28801. INQUIRIES/COMMENTS CALL: (828) 271-4800

National Climatic Data Center
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